**Tell us about data-related projects you’ve worked on recently.  
  
What was the goal of the project?  
What methods and tools did you use?  
What did you do?  
Were these projects that you worked on independently, or as part of a team?  
What was your role if it was done as part of a team?  
What was the outcome and impact?**  
**If any materials about the projects are available online, please include links here (papers, web pages, Github repos, blog posts, etc.).**

**What was the goal of the project?**

I recently worked on a large data-related project for a corporation that specializes in water sustainability, sanitation, and energy efficiency. In addition to this project I have worked on data-related projects for fortune 500 manufacturing clients, digital marketing corporations, and oil and gas private equity firms.

**What methods and tools did you use?**

Throughout the project I used advanced SQL queries to analyze the quality and dynamics of the overall data; advanced SQL with SSIS (SQL Server Integration Services) to build data flows for transformation, cleansing, and loading; PowerBI to build interactive dashboards and reports with data located in systems across the organization, as well as data from the web (real-time energy prices); Microsoft Azure Machine Learning, Microsoft Azure Data Warehouse, Microsoft Stream Analytics.

**What did you do?**

In the Analysis phase of the project I primarily used SQL to analyze the current state of the data in the client’s relational databases. I found and documented my findings related to how the business was structured, quality of data in different areas, potential for new data collection, and created data models to help communicate complex scenarios to the business.

In the Design phase of the project I worked with the business to present my data analysis and collaborate to find a solution that could innovate their business to become more profitable and efficient.

In the Build phase I built SSIS packages with SQL to extract, transform, and load data into Microsoft Azure, Microsoft Dynamics CRM, SAP, and other systems. I also worked with the business and IT team to build algorithms with machine learning that used IoT data from sensors located on equipment throughout the world to provide predictive analytics for the service engineers to use and prevent mechanical failures.

In the Testing phase I worked with IT directors and business owners to properly build dashboards and reports with PowerBI. Some of these reports required data from multiple sources to find interesting patterns. For example, we were able to use real-time energy prices along with address user data to show ROI related to water and energy efficiency on a geographic map.

**Were these projects that you worked on independently, or as part of a team?**

I have worked as a part of a team for all of my data-related project experience. I enjoy working as a part of a team because it allows me to collaborate with people that have different skill sets and ways of analyzing problems so that we can accomplish complex tasks that would not be possible otherwise.

**What was your role if it was done as part of a team?**

My role on the project was the Data Lead for the overall CRM implementation. As the Data Lead, I worked with business experts to identify opportunities for re-structuring data, cleaning data, and how to use IoT data to provide predictive analytics. I worked most closely with business process consultants, engineers, sales managers, and data architects.

**What was the outcome and impact?**

The outcome of this project was a successful global rollout of a cloud-based CRM system along with newly structured data models, data architecture, an innovative data storage strategy, and an up-and-running machine learning solution connected to IoT sensors.

**What is it about ‘social good’ work that you find compelling?  
  
Tell us about your past experiences working in (or with) the public sector (this can mean work or projects with governments and nonprofits, volunteer work, or for-profit work with a social mission).  
  
Additionally, tell us about an accomplishment are you most proud of in this area? In two sentences, tell us what you found a) the most rewarding and b) the most frustrating about these experiences.**

I find ‘social good’ work compelling in three primary facets: impacting a positive social mission by applying relevant formal education and work experience, working with a diverse group of people that have a similar passion for a positive social mission, and observing the positive impact that a solution I was a part of was able to accomplish.

**Tell us about your past experiences working in (or with) the public sector (this can mean work or projects with governments and nonprofits, volunteer work, or for-profit work with a social mission).**

Some of my most rewarding experiences have been a result of volunteer work. Most recently, I was a part of a large team that helped clean up and organize a Chicago public elementary school, as well as a smaller team that assisted the Ronald McDonald House in downtown Chicago with various types of organizing, cleaning, and overall administration. In addition to these experiences, I do run a nonprofit organization called Drop in Sports that I work with a small team on to supply the Chicago area with easily-accessible information on when they can find “drop in” games or scrimmages near them. The primary goal of this organization is to allow individuals to have an easy-to-find healthy option for activity outside of school or work.

**Additionally, tell us about an accomplishment you are most proud of in this area? In two sentences, tell us what you found a) the most rewarding and b) the most frustrating about these experiences.**

I am most proud of assisting with the improvement of the overall conditions of a Chicago Public Elementary school.

1. The most rewarding part of this experience was seeing the look on the children’s faces when we delivered classroom learning enablement kits to their classrooms.
2. The most frustrating part of the experience was the realization that no matter how much work we accomplished during our project, there would be children attending the school that would still have to deal with intense gang violence in their community and life at home.

**DSSG is a team-centric environment. Tell us the three best qualities that you bring to a team (your experiences can be from school or from a job).   
Tell us one element of teamwork that you find frustrating, and walk us through the process of how to like to work through disagreements.**

1. Enthusiasm
2. Consistency
3. Flexibility

One element of teamwork that I find frustrating is the challenge involving the agreement of all team members on an ideal solution with sufficient confidence in overall project success. My primary process for working through these agreements begins with acknowledgement and analysis of all team member’s opinions on the issue. After this analysis and acknowledgement, the next step in the process typically involves aggregating the discrepancies clearly to understand the current gaps in the overall decisions of the team. Following aggregation and understanding, historical data analysis behind each decision is helpful to comprehend the proper weight of each stance. Finally, presentation of the gaps along with relevant historical analysis with the full team allows everyone to make a further educated decision based on a wider depth of facts related to the proposed project solution.

**Tell us about your future plans (post-DSSG and post-summer as well as longer term) and what you want to get out of this summer at DSSG**

My long term career aspiration is to become a data scientist. I have studied behavioral economics, econometrics, data modeling, advanced SQL, machine learning, IoT, cloud architecture, and regression analysis to position myself in the fascinating, evolving market of data science. I have an immense passion for all things data. Data tends to grow exponentially and I firmly believe that it will be the driver of the world’s most exciting future innovations. My plan is to immerse myself in the middle of the data science industry so that I can successfully contribute to intriguing solutions that will help solve pressing social issues such as health related poverty, sustainable energy, and innovational education.